

ARMY AVIATION FORCE STRUCTURE IN SUPPORT OF COUNTER INSURGENCY OPERATIONS

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USAWC STRATEGY RESEARCH PROJECT

**ARMY AVIATION FORCE STRUCTURE IN SUPPORT OF COUNTER INSURGENCY
OPERATIONS**

by

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Army Aviation, specifically rotary wing and unmanned aerial systems (UAS) are extremely effective in the counter insurgency (COIN) environment. Army Aviation serves as a combat multiplier by providing intelligence, precision fires, mobility to the force, and a presence over the battlefield. The correct organizational template of personnel, airframes, and maintenance within the combat Aviation Brigades is essential to our continued success in the COIN environment. This essay describes the capabilities, structure, employment of aircraft types, and explores the overall effectiveness of aviation operations in support of COIN. In order to continue aviation's success in COIN the Army must complete transformation of all combat aviation brigades to the medium design and recapitalize the attrition in airframes over the last eight years of war.

ARMY AVIATION FORCE STRUCTURE IN SUPPORT OF COUNTER INSURGENCY

Army Aviation, specifically rotary wing and unmanned aerial systems (UAS) are extremely effective in counter insurgency warfare. Army Aviation serves as a combat multiplier by providing intelligence, precision fires, mobility to the force, and a presence over the battlefield. The correct organization template of personnel, airframes, and maintenance within the Combat Aviation Brigades is essential to our continued success in the counter insurgency (COIN) environment.

Army Aviation after the Vietnam era focused training, organizational structure and aircraft acquisitions on the Cold War conventional fight. We built a force to defeat a Soviet armored threat on the plains of Europe. We successfully transformed the AH-1 Cobra helicopter and crews from an effective counter-insurgent platform that performed so well in the jungles of Vietnam into an anti-tank platform for the plains of Europe. We specifically designed and built the AH-64A Apache for the primary purpose of destroying massed armor formations and trained crews for cross forward line of troops (FLOT) deep attacks.¹ This trend continued as we built the AH-64D Longbow with its mast mounted radar designed to quickly sort through a target rich battlefield, prioritize targets based on threat, and assign Hellfire missiles to over 100 targets simultaneously. All of this accomplished in a near “auto pilot” mode with hardly any input from the aviator at the controls.

The Army built the force structure to conduct surge operations for limited periods of time; just the type of fight we expected in Europe or Korea, and did not anticipate the need for aviation brigades to operate in an environment of sustained and continuous operations. Since our conflicts in Iraq and Afghanistan started, Army Aviation has flown

3,658,855 flight hours as of 15 January 2010.² Individual aircraft that flew 20-30 hours per month in the Cold War era are now flying between 85-115 hours per month for up to two consecutive years prior to being reset.³ This required a tremendous increase in maintenance capability and manning. Dramatic changes in the aviation organizational structures were required to meet this new and prolonged challenge. The Combat Aviation Brigade structure, with its increased capabilities, was created to meet the OPTEMPO challenges we are now experiencing in Iraq and Afghanistan.

This paper will briefly describe the current aviation force structure and how it operates in the COIN environment within the rubric of FM 3-24, our current COIN Army doctrine. The paper will then look at the effectiveness of aviation operations in COIN and how the Army can improve upon our current successes and future opportunities.

Current Organization and Operations

Army Aviation went through an incremental series of organizational changes as part of transformation that enhanced our capabilities to fight in the COIN environment from 2001 to the present. The most significant change was the consolidation of aviation assets into the Combat Aviation Brigade. Previously we had assets distributed between Corps Aviation Brigades and Groups, Divisional Cavalry Squadrons, Air Cavalry Squadrons assigned to Armored Cavalry Regiments, and finally the Divisional Aviation Brigades. This force structure worked well for the much anticipated large scale conventional fight we prepared for during the Cold War years. However, it was ill suited for sustained continuous operations in support of COIN due to its inability to effectively task organize. The biggest difference between COIN and conventional operations for aviation is that COIN requires a continuous presence of aircraft in the fight versus the surge nature of conventional operations.

The new Combat Aviation Brigade pulled the majority of assets into one self-sustaining organization that is modular and can quickly integrate into a Corps, Division, or Joint Task Force. The transformation is not quite complete, but eventually all Combat Aviation Brigades (CABs) will become known as Medium CABs with identical structures. A Medium CAB consists of an Attack Battalion (24 AH-64D Apaches), Air Cavalry Squadron (30 OH-58D Kiowa Warriors), Assault Battalion (30 UH-60L Blackhawks), General Support Aviation Battalion (mix of 8 UH-60L, 12 CH-47D Chinooks, and 15 HH-60A MEDEVAC aircraft), Aviation Support Battalion (both Aviation Intermediate and Unit Maintenance capability) as well as an Unmanned Aerial Systems Company (12 Extended Range Multi-Purpose UAS).⁴

Each of the four flight battalions (Attack, Cavalry, Assault, and GSAB) contains their own organic Aviation Unit Maintenance Company. The CAB with their Aviation Support Battalion also provides Aviation Unit Maintenance (AVUM) and Aviation Intermediate Maintenance (AVIM) enhancement to supplement the flight battalion's organic maintenance capability. This dramatically increases the CABs ability to sustain operations indefinitely at an exceptional high number of flight hours as we have already seen in Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Battalions and Squadrons are flying record numbers of flight hours that the cold war structure could never have supported. This additional maintenance capability is an essential element that allows the CAB to provide a continuous battlefield presence required in COIN operations per FM 3-24. The concept of battlefield presence will be discussed in greater detail later in the paper.

The Medium CAB differs from the Heavy CAB or Light CAB in that it has an Air Cavalry Squadron (OH-58D Kiowa Warriors) and an Attack Battalion (AH-64D Apaches). The Heavy CAB has two Attack Battalions with no Air Cavalry Squadron while the Light CAB has two Air Cavalry Squadrons and no Attack Battalion.

The great benefit of the new Medium CAB structure is the ability to quickly task organize and tailor specific capabilities to meet mission requirements. We can task organize at battalion level like never before. We can take an Attack Battalion and provide it with lift capability from the Assault Battalion or GSAB; we can provide it with a surveillance capability from the UAS Company or a reconnaissance/light attack capability from the Air Cavalry Squadron. The converse is true as well; if you have an Air Assault Battalion that suddenly has a precision fires requirement their staff can quickly absorb an Attack Company into the organization and fight it with minimal to no augmentation. The options to task organization and capability enhancement at the battalion level are really endless under the Medium CAB organizational design.

This enhanced ability to task organize and operate with additional resources is assisted by the robust command and control provided to the battalions. Battalion level staffs received additional C2 capability through increased numbers of personnel allowing true 24/7 operations. The experience of the staffs increased by assigning specialty branches that we did not have before such as Military Intelligence Officers to fill the Intelligence (S2) and Battlefield Intelligence Coordinator (BIC) positions, Adjutant General Officers for the Personnel Officer (S1) positions, Quartermaster Officers for the Supply Officer (S4) positions, and Transportation Officers for the Forward Support Companies. This is just to name a few of the key positions on the staff that previously

required an aviator to fill. This meant the aviator had to learn a new and specialized set of skills which limited their contribution to the fight as part of an aircrew. This hampered the battalion's ability to conduct sustained flight operations.

In order to demonstrate the multi-faceted capability of the Medium CAB I will use my squadron command experience in OIF 07-09 as an example. This aviation task force worked in Multi-National Division-North (MND-N) in support of a Heavy Brigade Combat Team (HBCT) with four maneuver battalions and a special operations task force. Task force mission sets included lift support to the HBCT, the Counter-Improved Explosive Device (C-IED) fight in Mosul and key Main Supply Routes (MSRs) in the HBCT's area of operations (AO), interdiction of smuggling operations along the Syrian border, security for all convoys operating in the battle space, as well as 24/7 troops in contact (TIC) response. This is an impossible list of requirements for a generic Air Cavalry Squadron to handle on its own without augmentation. The CAB provided additional resources to task organize and tailor capabilities to meet these mission demands.

The task force gained an AH-64D company that executed TIC response, C-IED missions along MSR Tampa and provided security to the convoys in the outlying areas of the AO. The AH-64D is well suited for this role due to its precision fire capability with the Hellfire missile and highly accurate 30mm gun. The extended range and speed this aircraft provides allowed it to focus on the outer most areas of the BCT's battle space.

The task force's organic Air Cavalry Troops (OH-58Ds) provided the 24/7 TIC response to the ground maneuver force inside the urban environment of Mosul, this small nimble aircraft is ideal for operations in the city. In addition the OH-58Ds

conducted the C-IED fight inside the city with precision fires using the Hellfire missile. The Air Cavalry Troops played a large role in the city which mitigated their limited fuel endurance and slower airspeed when compared to the AH-64D Apache.

The Air Assault Troop (UH-60L Blackhawks) provided transportation for personnel and supplies throughout the HBCTs battle space. In addition they provided air assault capability for both the BCT and supported Special Operations Forces. When combined with AH-64Ds or OH-58Ds the UH-60Ls were critical to vehicular interdiction operations along the Syrian border in the fight against smuggling of foreign fighters and supplies.

Two platoons of Shadow unmanned aerial systems were attached from the BCT to support the C-IED fight and screen the Syrian border. The Shadows proved to be crucial to our success with the C-IED fight inside the city of Mosul. Shadows provided the persistent reconnaissance capability required to identify and maintain contact with IED emplacements. These systems were teamed with OH-58Ds and AH-64Ds to great effect in directing aircraft onto targets and engaging them. In fact, over 115 IED emplacements were killed in the city of Mosul during this rotation utilizing manned and unmanned teaming.⁵

To recap what capabilities the CAB brings into the fight we discussed intelligence, precision fires, mobility, and battlefield presence. Intelligence is provided by the UAS platforms and aircrews trained in reconnaissance techniques. The amount of terrain covered from the aerial perspective of altitude, speed of the platforms and the improved forward looking infra-red (FLIR) and visual systems present unlimited potential in intelligence gathering. The organic Extended Range Multi-Purpose (ERMP) UAS and

attached Shadows provide a critical ISR capability. Hellfire missiles provided the precision fires from the manned and unmanned aircraft of the CAB. Mobility is provided from both the Assault Battalion and the General Support Battalion with the UH-60L and CH-47D aircraft. Finally the continuous battlefield presence from all airframes is enabled through increased maintenance capability and a robust staff. Most importantly, the ability to tailor capabilities with attack and reconnaissance aircraft is resident within the Medium CAB organization.

Effectiveness in COIN Operations

We finally have a comprehensive doctrinal manual that describes the COIN environment and overall goals, objectives and methods for success. FM 3-24 provides a foundation to build upon and adapt to the ever changing COIN environment. This manual tells us that killing insurgents, while necessary, especially with respect to extremists by itself cannot defeat an insurgency.⁶ Victory is achieved when the populace consents to the government's legitimacy and stops actively and passively supporting the insurgency.⁷ The military forces' primary function in COIN is protecting the population.⁸

When you examine how to protect a population in COIN it becomes apparent that it is more than just a defensive operation. There are many times when the counter-insurgent force must pursue the insurgent offensively. In order for the population to eventually consent to the government's legitimacy and become contributing members of their society we must protect them through stability operations. We are now conducting full spectrum operations defined as simultaneous offensive, defensive and stability operations.⁹

So how does Army Aviation contribute to full spectrum operations in the COIN environment? Much of our conventional strengths are well suited for COIN particularly in

the offensive aspect of full spectrum operations. The major difference between the conventional and COIN model for aviation is the sustained versus surge nature of operations. COIN requires a large and continuous force presence to defeat a determined insurgency. Most density recommendations fall within a range of 20 to 25 counterinsurgents for every 1,000 residents in an AO.¹⁰

Given this formula the size of the counter-insurgent force increases dramatically under the new doctrine. Currently our force ratios in both Iraq and Afghanistan are significantly short of these goals. When properly resourced and applied, airborne platforms can reduce the ratio of COIN forces required to defeat insurgents.¹¹ The mobility and speed provided by army aviation allows you to increase your force presence without increasing the physical size of the force. The army has always looked for innovative methods to increase mobility and presence on the battlefield. An example that directly influenced aviation occurred in 1962 by direction of Secretary of Defense McNamara.¹² McNamara's search for increased mobility eventually resulted in the establishment of the 11th Air Assault Division (Test) to explore air mobility concepts. The 11th Air Assault Division (Test) validated the air mobility concepts in preparation for the Vietnam War.

The following section of this paper will discuss full spectrum operations and detail its three components of offense, defense and stability operations with an examination of how army aviation contributes to each component.

Offensive

Offensive operations require rapid and precise fires to effectively engage an elusive enemy who will use the population as a shield for his own defense. Offensive operations against insurgents are often against targets of opportunities that suddenly

present themselves through good intelligence work, persistent surveillance, or often just sheer fortune. In order to take advantage of these fleeting opportunities you must have a platform that is responsive, flexible and precise. This is nothing new for Army Aviation as demonstrated by a quote from the 101st Airborne Division (Airmobile) Operation Lamson 1971 after action review, “Armed helicopters provided the capability for detecting and immediately engaging battlefield targets of opportunity close to friendly troops on the ground unmatched by any other weapons system in the United States inventory.”¹³ Operation Lamson 719 was the pursuit of insurgents who were using Laos as a sanctuary. The 101st utilized its rotary wing assets for offensive operations into Laos in support of Army of the Republic of Vietnam (ARVN) ground maneuver forces with great success.

Precise and measured application of fires are necessary in order to ensure we do not undermine our over arching goal of protecting the populace.¹⁴ The use of excessive fires and the associated collateral damage will quickly turn a population against the counter-insurgent force. This of course presents a challenge in the densely packed urban environment.

Now let’s examine how Army Aviation conducts offensive operations against the insurgency we face in Iraq and Afghanistan. The C-IED fight, TIC response, precision strikes against static and mobile targets, as well as vehicular interdiction are prime missions well suited to army aviation.

The IED threat continues to challenge our force in both OIF and OEF. There are many assets devoted to defeating this threat in an attempt to engage the IED network “left” of the blast. The term “left” of the blast refers to our ability to engage the IED

network prior to detonation of the device against our forces. This would entail interdicting IED supplies, locating cache sites, attacking an IED production site, or engaging IED emplacements in the act of emplacement. The teaming of manned (OH-58Ds and AH-64Ds) and unmanned (Shadow, Predator, ERMP) systems have proven to be particularly effective during the emplacement phase. In order to detect patterns of abnormal life in an insurgency, especially those which function at a slow tempo intelligence, security, and reconnaissance (ISR) aircraft must maintain persistent watch over the contested area.¹⁵ When coupled with precision fires, this provides great incentive for insurgents to curtail their activity.¹⁶

Let's look at one example in Mosul where the IED threat during the fall of 2007 reached all time highs of over 400 attacks per month.¹⁷ The C-IED fight was given to the aviation taskforce of AH-64D, OH-58D, and Shadow UAS airframes. Intelligence analysis indicated large scale IEDs were being placed along key routes within the city of Mosul in random locations. However, the emplacement times consistently occurred between sunset and 2300 each night. The aviation task force surged assets for continuous coverage within this emplacement window with two Shadow UAS and two Scout Weapon Teams (SWTs). The Shadows focused on key routes in the center of the city divided east and west by the Tigris River. The SWTs focused on routes along the edges of the city from outside looking in also with an East and West side team divided by the Tigris River. The visual acuity of the FLIR systems allowed the aircraft to remain outside and above audible range of the IED emplacer.

The C2 was controlled from the Aviation Task Force Tactical Operations Center (TOC). The UAS feeds all linked directly into the TOC to enable the Task Force staff to

quickly observe, evaluate and determine if the contact was an actual IED emplacer based on established criteria. The video feeds were available to the ground maneuver TOCs that owned the battle space enabling rapid clearance of fires. These operations engaged and destroyed over 115 IED emplacers from September 2007 to August 2008 inside of Mosul.¹⁸ More significant was the drop in IED attacks from an all time monthly high of 415 attacks December 2007 to 75 per month in June 2008.¹⁹ A total elimination of all large scale IED attacks occurred by March 2008.²⁰ Despite the crowded urban environment there was only one minor instance of collateral damage in nearly 100 Hellfire engagements within the confines of the city.²¹

Troops in Contact (TIC) response eclipsed all other mission sets conducted by the aviation task force in priority, frequency and urgency. OH-58Ds Scout Weapon Teams (SWTs) from the Air Cavalry Troops (ACT) focused on TICs within the city of Mosul while the AH-64 Attack Weapon Teams (AWTs) of the Attack Company focused outside the city. The insurgents maintained a healthy respect for the SWT and AWTs and often ceased attacks against targets just upon hearing the sound of approaching aircraft.²² The psychological impact of a low flying SWT or AWT against a typically uneducated and ill trained insurgent cannot be underestimated. Time and again cell phone voice intercepts were received that clearly demonstrated the insurgents' ingrained fear of U.S. aircraft.²³ The insurgent often overestimated the capabilities of the aircraft to our distinct advantage.

Based upon these voice intercepts and the observed actions of insurgent response to approaching aircraft indicates the value of an aviation presence on the battlefield. This presence can be a significant factor in deterrence of insurgent activity.

Precision fires against targets of opportunity is the ideal mission for AWTs and SWTs even while they are engaged with providing battlefield presence, convoy security, route reconnaissance, or any of the other myriad of mission sets. A SWT or AWT that is out on the battlefield is often your most responsive means to re-task onto a target of opportunity. A target of opportunity may be a random act of violence picked up by one of our numerous ISR assets or it can be a high value target (HVT) that suddenly presents itself on the battlefield. In either case, time is of the essence and an aircraft already up in the air on a mission set is much more responsive than having to launch a team from a strip alert status. The key is to having a standing set of mission priorities that guide our re-tasking efforts. TIC response is the obvious first priority in most situations. Everything after TIC response the commander can prioritize as necessary. Crews need to be trained to accept battle hand-offs from a variety of sources such as UAS crews, aerostat crews, joint platforms, and special operations assets that may acquire targets of opportunity.

Defensive

Army Aviation is predominantly an offensive minded organization with aircraft designed for offensive operations. The old adage the best defense is a good offense applies to aviation operations in the COIN environment. However there are some specific defensive contributions that aviation provides when securing the population.

Protecting the population is our first priority in COIN operations.²⁴ The global trend in urbanization has created dense populations centers throughout the world. Army Aviation teamed with UAS platforms is ideal to provide reconnaissance and security along the approaches into these urban centers. This is not much different than the screen mission our aviation assets within the Armored Cavalry Regiments or

Divisional Cavalry Squadrons conducted for years along the borders of Europe and South Korea.

Examples of this technique include operations in MND-N and the securing of Mosul from infiltration of foreign fighters. Army aviation assets, UAS platforms attached to the CAB, and Task Force Odin fixed wing assets were all used to maintain surveillance on the approaches into Mosul during surge operations in 2007 through 2008. Once suspect convoys were located the aviation element used several tactics, techniques, and procedures (TTPs) to confirm or deny illicit activity. The preferred option was to maintain contact and guide a ground maneuver element to conduct search and seizure operations while the aircraft provided over watch.

Primarily due to the large expanse of battle space a ground maneuver element was seldom available to conduct searches. The CAB developed strike packages that allowed rapid search and seizure operations across the battle space. The strike package consisted of two UH-60L with an infantry squad attached working with a SWT or AWT. The SWT or AWT provided security while the UH-60 aircraft inserted the infantry squad on the front and trail of the suspect convoy. The infantry squad now conducts search and seizure operations. The SWT and AWTs provided over watch while the UH-60Ls prepare for extraction. This proved to be an extremely effective TTP in the battle space along the Syrian border. A large investment in training and rehearsal by the crews and attached infantry squad is required for safe and successful execution. The mobility provided by these vehicular interdiction strike packages greatly increase the ground maneuver commanders battlefield presence throughout the AO.

Convoy security is one of the main staples of aviation operations from a defensive perspective. Services provided by SWT and AWTs range from route reconnaissance looking for IEDs, vehicular borne improved explosive devices (VBIEDs), locating triggermen and providing navigational assistance to convoy commanders. The presence of aircraft over a convoy in itself often serves as deterrence to insurgent attacks.

Stability

Success in stability operations enable the local populace and host nation to resume or develop the capabilities to conduct COIN operations and create conditions that permit U.S. military forces to disengage.²⁵ The offensive and defensive operations already discussed without question contribute to stability operations by removing the threat or preventing his ability to influence the population. The long term goal is to develop indigenous capacity for securing essential services, a viable market economy, rule of law, democratic institutions, and a robust civil society.²⁶

Army FM 3-07 Stability Operations describes in detail essential stability tasks required for success. Army aviation plays a supporting role in many of these essential tasks. The essential tasks are broken down into primary tasks in which military forces retain primary responsibility.²⁷ Primary stability tasks aviation supports are the establishment of civil security and restoration of essential services.²⁸

Army aviation takes a direct role in establishing civil security through multiple mission sets. Enforce cessation of hostilities is an example of not only army aviation but joint forces as well playing a key role. Operation Southern Watch is a kinetic example by the USAF of successfully executing this task. Current ISR and rotary wing operations along the Syrian border with Iraq and the Pakistan border with Afghanistan

are examples of border control and boundary security.²⁹ The ISR operations and convoy security conducted daily by aviation forces in both theaters are examples of enforcing freedom of movement.³⁰

Restoration of civil services includes the many humanitarian missions conducted by aviation lift assets in support of dislocated civilians and crisis response. Airmobile medical civil action programs (MedCAP) to remote villages proved very effective as a means to temporarily restore basic medical services to remote areas within the CABs battle space.³¹ Support of famine prevention and emergency food relief are well documented by joint aviation forces. Operation Provide Comfort immediately following Desert Storm is an example of this capability aviation brings to the fight.

Aircraft Survivability

There is a school of thought that claims rotary wing operations are too vulnerable to modern day small arms fire and will soon be an irrelevant force on the modern battlefield. Operations in Iraq and Afghanistan are often discounted due to the perceived lack of enemy fire directed at rotary wing aircraft. Reasons for this perceived lack of enemy fire are attributed to the enemy's inability to mass fires effects against aircraft and his inability to acquire modern man portable air defense systems (MANPADs). Most would classify this conflict as a low-intensity fight. This war is now going on nine years with numerous examples of low to medium levels of intensity with regard to air defense tactics on the part of the insurgents in both Iraq and Afghanistan.

Let's look at July 2007 to August 2008 in MND-N Iraq as an example and make a comparison to the Vietnam War during Operation Lamson 719. To illustrate this example we will look at operations conducted in Vietnam and Laos by the 101st Air Airborne Division (Airmobile) from February thru April 1971. Operation Lamson 719 is a

good case comparison because it was predominantly an army aviation operation in support of ARVN forces. Limitations were in place that prohibited ground maneuver elements from entering Laos by any means except air. Operations in Laos were determined to be a “mid-intensity level of conflict” versus the “low-intensity level of conflict” characterizing most combat throughout the Indo-China war.³²

There is no question on the effectiveness of Operation Lamson 719, it is well documented and the details are beyond the scope of this paper. However by looking back and determining what was meant by a mid-level intensity of conflict we can establish common metrics for the current fight and determine where we are in regards to survivability against modern day small arms fire.

Aviation units executing missions in support of Operation Lamson 719 measured their operational tempo (OPTEMPO) in number of sorties flown. Today in army aviation we measure OPTEMPO in hours flown. In order to compare the two wars we have to translate today’s flight hours into 1971 era sorties. A typical sortie in support of Operation Lamson consisted of approximately four flight hours. Limited night missions were flown in Operation Lamson so we will pull all night missions out of our MND-N comparison model. Rotary wing aircraft supporting Operation Lamson received damage from small arms fire once every 1,000 sorties; once aircraft entered Laos airspace damage increased to 13 times per 1,000 sorties³³.

Now compare this to the fight in MND-N Iraq from July 2007 to August 2008; a 14 month period of time versus the 3 months in Operation Lamson. Let’s go back to our aviation task force example in MND-N. The average OH-58D aircrew was hit by enemy fire at the incredible rate of once every 68 sorties flown after we convert hours to

sorties.³⁴ This represents a significantly higher level of intensity than Operation Lamson crews experienced in 1971. Despite this level of intensity in over 47,000 flight hours flown by our task force in MND-N; not a single aircraft was lost to enemy fire.³⁵ Twenty-nine aircraft received damage from enemy fire but all were repairable.³⁶

I use this inexact comparison to demonstrate that rotary wing operations are survivable in low to mid levels of intensity environments. Aviation operations in both Operation Lamson and MND-N were very effective despite the density of enemy fire encountered in both theaters.

Improvements to the Current Aviation Force

There are two significant steps required to improve upon aviations success in COIN. The first step is to complete the transformation of all CABs to the medium structure. The second is the recapitalization of airframes within the force.

The current aviation force is in dire need of replacement aircraft. Unfortunately we have lost a significant number of airframes across the force to accidents and enemy action in the last eight years of war. In fact as of 2 February 2010, we have lost a total of 195 aircraft across the force to hostile fire and accidents.³⁷ This includes 63 AH-64 Apaches, 58 OH-58D Kiowa Warriors, 44 UH-60 Blackhawks, and 30 CH-47 Chinook aircraft.³⁸

The loss of the OH-58Ds is particularly acute and will negatively affect the transformation to Medium CABs. We do not have sufficient OH-58D airframes to fill the current organizational structure of the Air Cavalry Squadrons. Combat losses, accidents, and the recently delayed attack reconnaissance helicopter (ARH) program have all contributed to this short fall in OH-58D Kiowa Warriors.

The OH-58D is often the ground commander's airframe of choice in the urban fight. It is well suited for the urban environment due to its small visual signature, excellent visibility from the cockpit, and ability to maneuver in the confined urban terrain. The OH-58D has a tradition of providing direct support to the ground maneuver commander stemming from their legacy role in the Divisional Cavalry Squadron and the Armored Cavalry Regiments. Close bonds were developed through a mutual dependency between the ground maneuver element and the aviator as they work to develop air ground integration. These same bonds are quickly forming with the attack community (AH-64Ds) as a result of the tactics, techniques, and procedures developing in the current fight.

In order to meet demands of theater we often rotate airframes into units just prior to deployment as part of the Army Force Generation (ARFORGEN) process. During the OIF surge period of 2007 through 2008 the Army left some airframes in theater for new units to fall in on, an unusual process for that time. Normally after a 12 or 15 month rotation, those aircraft were sent back to depot level maintenance for an extensive overhaul known as "reset". The shortage of OH-58Ds required these airframes to conduct back to back rotations. This meant stateside units were not receiving a full complement of airframes until very late in the training phase of ARFORGEN.

This creates challenges for a community with a very perishable skill set both in the cockpit and in the maintenance shops. The many currency and proficiency requirements for an aviation unit remain regardless of where the unit is in the ARFORGEN process.

Recommendation

The first step however, is to complete the transformation from a mix of Heavy, Light, and Medium CABs to all Medium CABs across the active component. The current Army plan to complete this transformation is on a three year timeline.³⁹ Today we have 11 active component CABs and are in the process of reorganizing assets to create a 12th Medium CAB.⁴⁰ The current composition of these CABs is 6 Medium, 4 Heavy, and 1 Light CAB for the active component. The 2009 Quadrennial Defense Review provides specific guidance to increase our rotary wing capability through additional aircraft acquisitions and build a 13th CAB.⁴¹

In order to transform all 12 and grow the 13th to a medium structure the shortage of OH-58Ds has to be addressed. Recall from the beginning of the paper the Air Cavalry Squadron consisted of three Air Cavalry Troops of 10 OH-58Ds each for a total of 30 aircraft in a squadron. The only way to complete the transformation without purchasing additional OH-58Ds is to reorganize the Air Cavalry Squadron. The current proposed organizational structure will retain the three Air Cavalry Troops in the squadron with seven aircraft instead of ten per troop thus reducing the squadron from 30 to 21 aircraft.⁴²

This is a significant reduction in capability. The ACTs with ten aircraft or four SWTs assuming one SWT would be down for maintenance were able to maintain 24 hour continuous coverage with overlap between teams. A single SWT is capable of maintaining coverage for eight hours day or five hours night. This gives you 16 hours of day coverage with two SWTs and ten hours of night coverage with two SWTs. Cutting the air cavalry troop down to seven aircraft will limit you to three SWTs and reduce coverage to less than 24 hours.

In order to mitigate this reduction in 24 hour coverage capability by the Air Cavalry Troop the Air Cavalry Squadron will gain two Shadow UAS platoons of five aircraft each. A well trained and maintained Shadow platoon can maintain 24 hour coverage. This is a significant capability that mitigates the reduction in OH-58D aircraft. Mitigate is the key word because a Shadow does not bring the same capabilities to the fight as a SWT. The human crewmember in a manned aircraft brings an inquisitive and investigative nature to the table that cannot be replicated in a UAS.

Conclusion

Army Aviation has demonstrated that it is well suited to conduct operations in the COIN environment with great success. In order to maintain this trend we must complete the transformation to all Medium CABs across the Army. The lethality and adaptability of the Medium CAB is unmatched in Army Aviation. The Medium CAB can task organize internally to meet any foreseeable threat we may face to include a conventional force.

The recapitalization and modernization of the aviation force must remain a top priority through completion. Aircraft acquisitions are a long and costly enterprise that cannot wait. This war has elevated air ground integration to unprecedented levels of effectiveness. We now must invest in new airframes to maintain this edge for the future.

Endnotes

¹ U.S. Department of the Army, *Attack Helicopter Operations*, Field Manual 17-50 (Washington, DC: U.S. Department of the Army, July 1, 1977), preface, 3-1.

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⁵ COL Jessie O. Farrington 1st CAB Commander, “1st CAB Battle Action Summary” briefing slides with scripted commentary, Aviation Senior Leaders Conference, Fort Rucker, Alabama, January 2008.

⁶ U.S. Department of the Army, *Counterinsurgency*, Field Manual 3-24 (Washington, DC: U.S. Department of the Army, December 15, 2006), pg 5.

⁷ Ibid., 6.

⁸ Ibid., 54.

⁹ Ibid., 166.

¹⁰ Ibid., 23.

¹¹ James S. Corum and Wray R. Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists*, (Lawrence, KS: University Press of Kansas, 2003) 435.

¹² Mark A. Olinger, *Conceptual Underpinnings of the Air Assault Concept: The Hogaboom, Rogers and Howze Boards*, The Land Warfare Papers no. 60W (Arlington, VA: Association of the United States Army, Institute of Land Warfare, December 2006), 6.

¹³ 101st Airborne Division (Airmobile), Airmobile Operations in Support of Operation LAMSON 719 8 February – 6 April 1971, Volume I. pg I-33.

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¹⁵ John W. Bellflower, “The Indirect Approach,” <http://www.armedforcesjournal.com/2007/01/2371536/> (accessed January 9, 2010).

¹⁶ Ibid.

¹⁷ COL Jessie O. Farrington 1st CAB Commander, “1st CAB Battle Action Summary” briefing slides with scripted commentary, Aviation Senior Leaders Conference, Fort Rucker, Alabama, January 2008.

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¹⁹ Ibid.

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²² Ibid.

²³ Ibid.

²⁴ U.S. Department of the Army, *Counterinsurgency*, 54.

²⁵ Ibid, 62.

²⁶ Department of Defense Directive 3000.05

²⁷ U.S. Department of the Army, *Stability Operations*, Field Manual 3-07 (Washington, DC: U.S. Department of the Army, October, 2008), 3-2.

²⁸ Ibid., 3-2 thru 3-9.

²⁹ Ibid.

³⁰ Ibid.

³¹ Multi-National Corps – Iraq, Public Affairs Office, Camp Victory APO AE 09342, Release No. 0308-08, 8 March 2008.

³² 101st Airborne Division (Airmobile), Airmobile Operations in Support of Operation LAMSON 719 8 February – 6 April 1971, Volume I. pg iv.

³³ Ibid, 272-273.

³⁴ Personal experience of the author as Commander of 4-6 Air Cavalry Squadron, MND-N, Iraq, 2007-2008.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Mr. Jon Blake, Director, G5, Current Operations, U.S. Army Combat Readiness Safety Center, COM (334)255-2801; e-mail: jon.blake@us.army.mil

³⁸ Ibid.

³⁹ COL Jessie O. Farrington, Aviation Officer, FORSCOM, telephone interview by author, January 8, 2010.

⁴⁰ Quadrennial Defense Review Report, February 2010, United States Department of Defense, viii.

⁴¹ Ibid, viii, xvi.

⁴² COL Farrington O. Farrington, Aviation Officer, FORSCOM, telephone interview by author, January 8, 2010.